AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-7. (Cancelled)

8. (Currently amended): Alumina hydrate particles having a composition represented by the general formula:

$$x\ M_2O \cdot y\ (NH_4)_2O \cdot Al_2O_3 \cdot z\ H_2O$$

$$2 \times 10^{-4} \leq \sout{10^{-4}} \leq x \leq 25 \times 10^{-4}$$

$$0.1 \times 10^{-4} \leq y \leq 20 \times 10^{-4}$$

$$0.6 \leq z \leq 2.5$$

wherein M represents an alkali metal; when the alkali metal is in the form of M_2O, x is the number of moles thereof per mole of Al_2O_3; when ammonia is in the form of $(NH_4)_2O$, y is the number of moles thereof per mole of Al_2O_3; and z is the number of moles of hydration water (H_2O) per mole of Al_2O_3,

said alumina hydrate particles having:

an average particle diameter of 0.02 to 0.2 μm,

a total pore volume of 0.5 to 1.5 ml/g, and

a volume of pores whose diameter is from 15 to 30 nm ranging from 0.3 to 1.0 ml/g.

9. (Previously presented): A process for producing alumina hydrate particles, comprising the steps of:

neutralizing an aqueous solution of alkali metal aluminate or an aqueous solution of aluminum salt to thereby form an alumina hydrogel;

separating the alumina hydrogel by filtration, and washing the separated alumina hydrogel with water and/or aqueous ammonia;

adjusting the pH value for the washed alumina hydrogel so as to fall within the range of 9 to 12, and heating the alumina hydrogel at 50 to 105°C to thereby effect aging of the alumina hydrogel;

adding an acid to the alumina hydrogel so that the alumina hydrogel is deflocculated into an alumina hydrosol; and

drying the alumina hydrosol.

10. (Currently amended): An alumina hydrate particle dispersion sol comprising a dispersion of alumina hydrate particles in water, wherein said alumina hydrate particles have a composition represented by the general formula:

$$x\ M_2O \cdot y\ (NH_4)_2O \cdot Al_2O_3 \cdot z\ H_2O$$

$$2 \times 10^{-4} \leq ~~10^{-4}~~ \leq x \leq 25 \times 10^{-4}$$

$$0.1 \times 10^{-4} \leq y \leq 20 \times 10^{-4}$$

$$0.6 \leq z \leq 2.5$$

wherein M represents an alkali metal; when the alkali metal is in the form of M_2O, x is the number of moles thereof per mole of Al_2O_3; when ammonia is in the form of $(NH_4)_2O$, y is the number of moles thereof per mole of Al_2O_3; and z is the number of moles of hydration water (H_2O) per mole of Al_2O_3,

said alumina hydrate particles having:

an average particle diameter of 0.02 to 0.2 μm,

a total pore volume of 0.5 to 1.5 ml/g, and

a volume of pores whose diameter is from 15 to 30 nm ranging from 0.3 to 1.0 ml/g.

11. (Currently amended): The alumina hydrate particle dispersion sol as claimed in claim ~~9~~ 10 having an absorbance (ABS) of 2.0 or less exhibited when the Al_2O_3 has a concentration of 20% by weight.

12. (Currently amended): The alumina hydrate particle dispersion sol as claimed in claim ~~9~~ 10 having a viscosity of 50 to 2000 cP exhibited when the Al_2O_3 has a concentration of 20% by weight.

13. (Currently amended): The alumina hydrate particle dispersion sol as claimed in claim ~~11~~ 12 having an absorbance (ABS) of 2.0 or less exhibited when the Al_2O_3 has a concentration of 20% by weight.

14. (Currently amended): A coating liquid for forming an ink receptive layer, comprising:

alumina hydrate particles and a binder, wherein said particles and binder are dispersed in one of water or an organic solvent,

wherein the alumina hydrate particles have a composition represented by the general formula:

$$x\ M_2O \cdot y\ (NH_4)_2O \cdot Al_2O_3 \cdot z\ H_2O$$

$$2 \times 10^{-4} \leq \sout{10\text{-}4} \leq x \leq 25 \times 10^{-4}$$

$$0.1 \times 10^{-4} \leq y \leq 20 \times 10^{-4}$$

$$0.6 \leq z \leq 2.5$$

wherein M represents an alkali metal; when the alkali metal is in the form of M_2O, x is the number of moles thereof per mole of Al_2O_3; when ammonia is in the form of $(NH_4)_2O$, y is the number of moles thereof per mole of Al_2O_3; and z is the number of moles of hydration water (H_2O) per mole of Al_2O_3,

said alumina hydrate particles having:

an average particle diameter of 0.02 to 0.2 μm,

a total pore volume of 0.5 to 1.5 ml/g, and

a volume of pores whose diameter is from 15 to 30 nm ranging from 0.3 to 1.0 ml/g.

15. (Currently amended): A recording sheet with ink receptive layer, comprising a substrate sheet having an ink receptive layer formed thereon from a coating liquid comprising:

alumina hydrate particles and a binder, wherein said particles and binder are dispersed in one of water or an organic solvent,

wherein the alumina hydrate particles have a composition represented by the general formula:

$$x\ M_2O \cdot y\ (NH_4)_2O \cdot Al_2O_3 \cdot z\ H_2O$$

$$2 \times 10^{-4} \leq \sout{10\text{-}4} \leq x \leq 25 \times 10^{-4}$$

$$0.1 \times 10^{-4} \leq y \leq 20 \times 10^{-4}$$

$$0.6 \leq z \leq 2.5$$

wherein M represents an alkali metal; when the alkali metal is in the form of M_2O, x is the number of moles thereof per mole of Al_2O_3; when ammonia is in the form of $(NH_4)_2O$, y is the number of moles thereof per mole of Al_2O_3; and z is the number of moles of hydration water (H_2O) per mole of Al_2O_3,

said alumina hydrate particles having:

an average particle diameter of 0.02 to 0.2 μm,

a total pore volume of 0.5 to 1.5 ml/g, and

a volume of pores whose diameter is from 15 to 30 nm ranging from 0.3 to 1.0 ml/g.